

### **Remarks**

Applicants have amended claim 1 and added new claims 24-26. Support for Applicants' amendment and new claims can be found, for example, in paragraphs [0031, 0035 and 0040] of the application. No new matter has been added to the application by virtue of the present amendments.

### **Claim Rejections - 35 U.S.C. § 102(b) and (e)**

The Examiner rejected claims 1-6, 8 and 22-23 under 35 U.S.C. § 102(b), as being anticipated by Baba, U.S. Patent No. 6,313,521; and claims 1, 9-10 and 12-13 under 35 U.S.C. § 102(e), as being anticipated by Jimarez et al., U.S. Patent No. 6,407,334, hereinafter Jimarez.

Applicants respectfully submit that Baba or Jimarez do not anticipate Applicants' independent claim 1, as amended, or claims dependent thereupon. Applicants have amended claim 1 to recite the limitation of "...a discrete conductive structure having about the same dimensions as a discrete chip component, wherein said discrete conductive structure is electrically coupled to said grounded pad and to said conductive lid." An aspect of Applicants' invention is the use of a block (400 in Fig. 4) or spring (600 in Fig. 6) (i.e. the discrete conductive structure), that resembles and can be handled like a discrete surface mount technology (SMT) component (e.g. chip capacitor or chip resistor) with the current SMT infrastructure of placement and joining. This allows the use of a flat lid, for example, which as explained has a number of advantages. Further, the discrete conductive structure acts to bridge a substantial amount of the physical gap between the conductive lid and the chip carrier, thus providing not only electrical and thermal contact but structural support as well. By occupying a substantial amount of the physical gap (e.g. about 90%), this allows the use of solder and electrically conductive adhesive to bridge the smaller remaining gaps (e.g. about 0.1 mm).

Baba and Jimarez do not anticipate Applicants' claim 1, as amended. Baba discloses an auxiliary board 10 which is a rectangular shaped board with an opening (see Fig. 3 of Baba) having

dimensions that are not about the same dimensions as chip component 7. Rather, auxiliary board 10 has entirely different dimensions than chip component 7 and is significantly larger than chip component 7. Thus, the auxiliary board 10 of Baba does not resemble a discrete SMT component and, as such, could not be handled with the current SMT infrastructure of placement and joining.

Jimarez discloses a stiffener 26 which is a square shaped board with openings (see Fig. 2 of Jimarez) having dimensions which are not about the same dimensions as a discrete SMT component. Rather, stiffener 26 has entirely different dimensions than a discrete SMT component. Thus, the stiffener 26 of Jimarez does not resemble a discrete SMT component and, as such, could not be handled with the current SMT infrastructure of placement and joining. Regarding capacitor 36 of Jimarez, Applicants respectfully submit that capacitor 36 is not electrically coupled to a grounded pad. Jimarez discloses a lower side of capacitor 36 mounted on “mounting pads 14” which are not electrically coupled to grounded pads 16 (see column 1, lines 65 to column 2, line 2). Thus, Jimarez is silent on electrically coupling capacitor 36 to a grounded pad. Applicants also note that capacitor 36 is not electrically coupled to a conductive lid (i.e. cover plate 46 of Jimarez). Since capacitor 36 is a discrete component, it is well known by those skilled in the art that the plates of capacitor 36 would be surrounded by an electrically insulating material to prevent the electrically conductive material 42 from electrically shorting the capacitor plates. For proper operation of capacitor 36, capacitor 36 must be electrically insulated from electrically conductive material 42 which results in capacitor 36 also being electrically insulated from cover plate 46. Thus, Jimarez is silent on electrically coupling capacitor 36 to cover plate 46.

Claims 1-6, 8-10, 12-13 and 21-26 are dependent upon Claim 1; and as discussed above, Claim 1, as amended, is not anticipated by Jimarez or Baba because neither disclose all the elements of claim 1, as amended. Therefore, Applicants respectfully submit that the rejection of claims under 35 U.S.C. 102(b) in view of Baba or 35 U.S.C. 102(e) in view of Jimarez has been overcome and it is respectfully requested that the pending claims be passed to issuance in view of the amendment and remarks.

#### **Claim Rejections - 35 U.S.C. § 103(a)**

The Office Action stated that claims 7 and 11 are rejected under 35 U.S.C. § 103(a), as being unpatentable over Baba or Jimarez, respectively, in view of U.S. Patent No. 6,562,655 issued to Glenn et al.

As discussed above, Applicants respectfully submit that Baba or Jimarez, individually or in combination with Glenn, do not teach or suggest Applicants' independent claim 1, as amended, or any claims dependent thereupon.

Based on the foregoing, Applicants respectfully traverse the rejection under 35 U.S.C. § 103(a) and submit that the rejections to claims 7 and 11 have been overcome.

### **Conclusion**

In light of the foregoing remarks, all of the claims now presented are believed to be in condition for allowance, and Applicants respectfully request that the outstanding rejections be withdrawn and this application be passed to issue at an early date.

The Examiner is urged to call the undersigned at the number listed below if, in the Examiner's opinion, such a phone conference would aid in furthering the prosecution of this application. No fee is due by virtue of this response. However, if the PTO determines that a fee is required, please charge Applicants' Deposit Account, 09-0456.

Respectfully submitted,

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